

# **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT**

## **DRAFT STAFF REPORT**

### **DRAFT AMENDMENTS TO RULE 2020 (EXEMPTIONS)**

Prepared by: Jim Swaney, Permit Services Manager  
Reviewed by: David Warner, Deputy APCO  
                  Arnaud Marjollet, Director of Permit Services  
                  Mike Oldershaw, Air Quality Compliance Manager

October 21, 2014

#### **I. SUMMARY**

The San Joaquin Valley Unified Air Pollution Control District (District) is proposing to amend District Rule 2020 (Exemptions) to align its permitting program with the California Air Resources Board (ARB) Portable Equipment Registration Program (PERP) and with the requirements of District Rule 4623 (Storage of Organic Liquids).

The proposed rule amendments would bring into line the District's exemption rule with the statewide PERP program by allowing certain registered portable engines to be used at stationary sources during unforeseen interruptions of electrical power from the serving utility, maintenance or repair, and short-term electrical upgrade operations. Amendments to Rule 2020 would also exempt currently permitted heavy oil tanks at small producers (which are also exempt from Rule 4623 controls) and maintain the current internal combustion engine exemption levels in response to recently adopted NSPS and NESHAP requirements for engines smaller than 50 brake horsepower (bhp). Additionally these amendments would update and consolidate various sections of the rule that discuss source test methods to allow for flexibility in using alternative test methods with written approval from the United States Environmental Protection Agency (EPA) and the District.

The District is holding a public workshop on October 21, 2014, to discuss the basis for these proposed changes with interested parties. During this rule development project, the District invites comments and suggestions on the proposed revisions. Written comments on this draft rule version will be due by October 28, 2014. A final draft of the rule and staff report will be published after addressing all written comments, at least 30 days prior to the public hearing to consider adoption of the rule by the District Governing

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Board. The adoption date on the draft amendments to Rule 2020 is scheduled for December 18, 2014.

## **II. BACKGROUND AND DISCUSSION OF PROPOSED AMENDMENTS**

### **A. Rule 2020 (Exemptions)**

Equipment or processes that may emit air pollution or are used for controlling air pollution are subject to permit requirements through the District's permitting program. Certain equipment with low emissions are exempt from permitting requirements and the purpose of Rule 2020 is to itemize these types of exempt sources. Rule 2020 also requires recordkeeping to verify or maintain the exemptions that are based on throughput or emissions limitation.

### **B. Statewide Portable Equipment Registration Program (PERP)**

Portable equipment is designed and capable of being carried or moved from one location to another. The California Air Resources Board established a statewide program for the voluntary registration of portable engines and equipment units in California, in response to industry's need for an alternative to permitting portable equipment at each location at which it operates, as is required under air districts' stationary source permitting regulations. Once registered under this voluntary program, portable engines and equipment units may operate throughout the State without having to obtain stationary source permits from the local air pollution control and air quality management districts. This program provides industry with the flexibility to operate portable engines and equipment units under a uniform statewide registration program, while also ensuring that emissions from such equipment are minimized and reduced over time.

Pursuant to the California Code of Regulation Title 13, Division 3, Chapter 9, Article 5, specifically section 2451(c)(3), a portable equipment registration is not valid when the emissions unit is operated in a way that it becomes part of a stationary source or if it operates in one location more than 12 months. Some of the indications that a piece of equipment qualifies as portable include wheels, skids, carrying handles, dolly, trailer, or platform.

Under current District regulations, there are instances where a portable emission unit is determined to be part of a stationary source and must be permitted by the District. District Rule 2201 (New and Modified Stationary Source Review Rule) Section 3.37, defines stationary source, which includes all equipment with emissions that are under common control, part of the same industrial process, and located on contiguous or adjacent properties. Per Rule 2201, emission units replacing or supplementing an ongoing function of a facility becomes part of that stationary source.

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Proposed Rule 2020 amendments would bring the District's exemption rule in line with ARB's Statewide Portable Equipment Registration Program provisions under ARB PERP regulations 2451(c)(9). Proposed amendments to Rule 2020 would allow the use of PERP engines operating to provide primary or supplemental power as generators, during unforeseen interruptions of electrical power from the serving utility, and electrical upgrade operations including startup, shutdown, and testing, that do not exceed 60 calendar days.

Emergency IC engines greater than 50 braking horsepower are generally permitted by the District. Emergency IC engines provide continued electrical power during unscheduled electrical power outages caused by sudden and unforeseen events beyond the control of the facility. For those sources that do not have a dedicated permitted emergency IC engine, there may be instances where power is needed during an unforeseen interruption of electrical power from the serving utility. Therefore, section 6.16.2.1 aligns the District's permitting program with the state PERP regulations, by clarifying that permits are not required for the purposes of addressing such emergency conditions.

Upgrading electrical systems generally requires disconnecting the user of the electricity from utility power. The state PERP regulation allows the use of registered portable equipment to generate power during electrical upgrades, including startup, shutdown and testing of the equipment. Section 6.16.2.1 adds these PERP provisions and the associated 60 calendar day limitation in District Rule 2020.

Generators under District permit at a stationary source, such as one powered by an IC engine, generally undergo maintenance or repair from time to time and are not be able to provide power when taken offline. For a facility that needs to have a continuous electrical system in place, a replacement portable generator may be brought on site, usually through a third-party rental company, to act as a temporary replacement while the permitted unit is being repaired. Amendments to 2020 would allow this type of portable engine to be used as intended by the PERP regulation with the caveat that the portable engine must qualify as a Temporary Replacement Emissions Unit (TREU) under Rule 2201 (New and Modified Stationary Source Review Rule). TREUs must have no greater emissions than the unit replaced, must be used for the identical purpose and cannot be used for more than 180 days in any 12 month period. Therefore, Section 6.16.2.2 was added to exempt from permits the temporary use of registered portable equipment as a TREU if it directly replaces a district permitted generator that undergoes maintenance or repair.

These amendments are intended to coordinate and align District Rule 2020 with the statewide PERP requirements, and relieve PERP engines from layered regulatory burden without impacting air quality.

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### **C. District Rule 2280 (Portable Equipment Registration)**

Portable equipment operators are allowed to register their units through either the statewide PERP or District Rule 2280.

There are approximately 428 portable equipment units in the valley that are registered through District Rule 2280, and there are 27,000+ engines statewide that choose to be registered through PERP. As with statewide PERP, portable engines registered through the District's Rule 2280 and used at stationary sources during unforeseen interruptions of electrical power from the serving utility, maintenance or repair of a District permitted generator, and short-term electrical upgrade operations will be exempt from permit.

### **D. Heavy Oil Tanks at Small Producers**

Heavy oil is viscous petroleum that the District defines as a crude oil that has an American Petroleum Institute (API) gravity of 20 degrees or less. Heavy oil tanks have minimal volatile organic compounds (VOC) emissions as heavy oil has a lower vapor pressure and does not volatilize as readily as light oil.

The small producer is typically a 'mom and pop' operation that has limited production capacity. As defined in Rule 4623 (Storage of Organic Liquids), Section 3.29, a Small Producer operates in the business of crude oil production that produces an average of less than 6,000 barrels per day of crude oil from all operations within the county; and does not engage in refining, transportation, or marketing of refined petroleum products.

Rule 4623 limits VOC emissions from the storage of organic liquids and applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored. Rule 4623 section 4.3 states that a small producer's tank with a throughput of 50 barrels of crude oil per day or less is exempt from the control requirements of this rule.

The District has analyzed expected emissions from Small Producer tanks and has found that while light oil tanks may have significant emissions, heavy oil tanks with low throughputs have minimal emissions.

For instance, average emissions from a heavy oil small producer tank with no pressure relief valve is 47 pounds of VOC per tank, ranging from 21 lb/year at a wash tank to 73 lb/year at a stock tank. The daily emissions from these tanks are under 0.2 pounds of VOC and therefore under the BACT threshold of 2 lb/day. In addition, such insignificant emissions do not trigger offsets as further discussed in Section III., below. Because these tanks are exempt from emissions requirements of Rule 4623 (Storage of Organic Liquids) and from any requirements under Rule 2201 (New and Modified Stationary Source Review

Rule), this rule amendment does not cause any emissions increases or avoid any air pollution control requirements.

Because requiring permits for heavy oil tanks at small producers that have a throughput of 50 barrels per day or less provides no air quality benefit, the District is proposing amendments to Rule 2020 to exempt such tanks from District permitting requirements.

**E. National Emission Standards for Hazardous Air Pollutants (NESHAP) and New Source Performance Standards (NSPS)**

EPA promulgates NSPS standards in 40 CFR Part 60, and Maximum Achievable Control Technology (MACT) standards, also known as NESHAP regulations, in 40 CFR Part 63. Generally, the District implements and enforces the MACT standards through District Rule 4002 (National Emission Standards for Hazardous Air Pollutants) and NSPS standards through Rule 4001 (New Source Performance Standards). Historically, NESHAPs and NSPS have applied to major sources of air contaminants. Accordingly, District permitting regulations have generally required permits of sources subject to a NESHAP or NSPS. However, EPA has recently promulgated NESHAPs and NSPS applicable to area sources which are considered small sources of emissions, individually, but when considered in conjunction with emissions from all similar equipment the cumulative emissions may be large.

For example, NSPS Subpart JJJJ and NESHAP Subpart ZZZZ regulate IC engines smaller than 50 brake horse power (bhp). Because Federal permitting requirements only apply to major sources, EPA designed these area source standards to be enforceable without permitting. The District considers IC engines equal to or smaller than 50 bhp as insignificant emission sources and exempt from permitting under Rule 2020, section 6.12.2. The District proposes to keep the permit exemption level of IC engines at 50 bhp.

Therefore, the definitions of HAP Source (section 3.6) and NSPS Source (section 3.12) will be revised to specifically exclude IC engines rated at 50 bhp or less, thus clarifying that such engines remain exempt from permits.

**F. Source Test Methods**

Source test methods are updated from time to time, and Rule 2020 is being amended to eliminate specification of the version of the stated test methods to be used, allowing for sources and source test companies to use the latest methods without needing to amend the Rule in the future.

Additionally, rule language allowing the use of alternative test methods, as long as the alternative test methods are approved in writing by EPA and the District,

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has been consolidated (see Section 8.2 of Rule 2020). This administrative amendment was recommended by the District's Permit Stakeholders group. The District had developed an alternative source test approval process, by which industry and stakeholders can request alternative test methods for District and EPA approval. Currently, the District is working with EPA on requests for alternative test methods and will publish any future District and EPA approved alternate methods on the District's website. This process will significantly streamline the approval of alternative test methods in the future.

### **G. Proposed Rule Amendments**

The sections in Draft Rule 2020 that are proposed to be amended are outlined below:

- Section 3.3: Added a new definition for Electrical Upgrade relating to the use of portable engines. The PERP regulation defines electrical upgrades allowed under ARB's registration program. The portable engine needs to meet the ARB definition for electrical upgrade for it to be registered through ARB's PERP program.
- Section 3.6: Modified the definition of HAP Source, to exclude IC engines 50 hp or less, to maintain current exemption levels in response to recent MACT Standards.
- Section 3.7: Added heavy oil as defined in 2201, having an API gravity of 20 degrees or less as determined by ASTM method D 287.
- Section 3.12: Modified the definition of NSPS Source, to exclude IC engines 50 hp or less, to maintain current exemption levels in response to recent NSPS Standards.
- Section 3.17: Added small producer as defined in Rule 4623
- Sections 6.1.1.6 and 6.7.5: These sections allow for use of alternative test methods, other than specified in the rule, if the alternative methods are approved in writing by EPA and the District APCO. These two sections were moved under the general Administrative Requirements in section 8.2.
- Sections 6.6.2, 6.6.3, 6.6.6, 6.6.7, 6.7.1.2.2, 6.7.3, and 6.9.2: Removed the year-version designation from the specified source test methods, to allow for sources to use the most recent, improved versions without needing to continually amend this Rule to add them.
- Section 6.6.12 adds the Permit to Operate and Authority to Construct exemption for heavy oil tanks with an individual throughput of less than 50 bbl/day at small producers.
- Sections 6.16.2: This section was added to state that portable engines are allowed to operate as long as they don't become a part of a stationary source. Emission units operated in a way that is considered part of a stationary source must obtain a District permit.
- Section 6.16.2 was moved to new section 6.16.3 and applies to the entire portable emission unit category.

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- Section 6.16.2.1: Portable engines operated less than 60 calendar days at a stationary source under the state of California PERP program or District Rule 2280 will not be required to obtain a district permit if they meet the provisions outlined in sections 6.16.2.1 and 6.16.2.3.
- Section 6.16.2.2: This section was added to exempt engines used as Temporary Replacement Emissions Units (as defined in Rule 2201, Section 3.41) and meet the provisions outlined in section 6.16.2.3.
- Section 8.2: The allowance for alternative test methods was moved here and applies to test methods found throughout the rule.

### III. PROTECT CALIFORNIA AIR ACT OF 2003 - SENATE BILL 288

California Health and Safety Code sections 42500 through 42507 (SB 288) mandates that a District's New Source Review (NSR) rules cannot be made less stringent, in a variety of specified areas, than the NSR rules that existed on December 30, 2002. This legislation was adopted specifically to prevent Districts from implementing any Federal NSR reforms that would have relaxed California's stringent NSR requirements. The District's NSR rules include Rules 2201 and 2410 (Prevention of Significant Deterioration), but do not include Rule 2020. The District is not proposing to amend Rules 2201 or 2410 at this time; therefore, a SB288 review is not required.

Notwithstanding the above, the District understands that ARB considers permit exemption rules to be a part of a district's New Source Review rules and so the following demonstrates that the proposed amendments to Rule 2020 are permissible under SB288.

ARB has provided guidance on the implementation of SB 288 (California Air Resources Board Guidance, *New Source Review and Senate Bill 288* (August 2004, as amended April 2006)), and has concluded that there are four components of NSR that are affected:

1. NSR applicability determinations.
2. The definitions of "modification", "major modification", "routine maintenance", and "maintenance or repair".
3. The calculation methodology, thresholds, or other procedures of new source review. ARB interprets this to apply to baseline determinations, calculating emissions changes, and major source and major modification thresholds.
4. The definitions and requirements of NSR regulations, both substantive and procedural. This includes the requirement to apply Best Available Control

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Technology (BACT), to perform an air quality impact analysis, and to obtain offsets<sup>1</sup>.

Per the ARB Guidance, each of these four components apply on both an individual source basis, as well as on a programmatic basis.

As Rules 2201 and 2410 are not being amended, there is no change to NSR applicability determinations, definitions, or calculation methods, thresholds or other procedures of NSR; and therefore, there is no effect on the first three listed components. For the fourth component, each of the proposed amendments to Rule 2020 will be evaluated to determine if there could be a relaxation of the NSR requirements for BACT, offsets and public notice.

## A. Registered Portable Emissions Units

Rule 2020 Section 6.16.2 is being added as the District has consistently received questions about whether portable equipment can be used as part of a stationary source, as defined in Rule 2201.

- **Section 6.16.2.1 clarifies permit exemption for portable engines operating as allowed by ARB's PERP regulation:**

Under the ARB PERP regulations, engines do not qualify to receive registration if they would be considered to be part of a stationary source, except for the specific cases contained in 2451(c)(9):

*(c) The following are not eligible for registration under this program: ... (9) generators used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment, except during unforeseen interruptions of electrical power from the serving utility, ... and electrical upgrade operations including startup, shutdown, and testing that do not exceed 60 calendar days.*

This section is open to interpretation, resulting in inconsistency in its application. In fact, ARB, the California Air Pollution Control Officers Association (CAPCOA), and industry worked together to develop guidance on implementing the PERP regulation, and in March of 2014 CAPCOA published the work product of this group (as published on ARB's website at: [http://www.arb.ca.gov/portable/perp/capcoa\\_document\\_3-12-14.pdf](http://www.arb.ca.gov/portable/perp/capcoa_document_3-12-14.pdf)). Included in this work product was a conclusion that permits were not required

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<sup>1</sup> While the District believes that this final component, relating to the requirement to obtain offsets, is an overly broad legal interpretation of the legislation, and inconsistent with the development and intent of the legislation, the District believes the proposed amendments are complying with ARB's interpretation on this issue. However, the District will reserve its right to challenge ARB on this issue at a later date, or if ARB uses this interpretation to contravene any of the District's proposed amendments.

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for engines operated under (c)(9). In order to clarify that such equipment is exempt from permits, provided it is appropriately registered and operated under the State's PERP regulation, proposed Rule 2020 Section 6.16.2.1 will be added.

As this clarification does not change current permitting requirements, it is not a relaxation under SB288.

- **Section 6.16.2.2 provides permit exemption for engines used in repair and maintenance operations and qualify as Temporary Replacement Emissions Units (TREU):**

Rule 2020, Section 7.3 allows repair and maintenance activities to occur without triggering permitting requirements. In addition, ARB PERP regulations allow registered engines to provide power to a source as part of repair and maintenance functions:

*(c) The following are not eligible for registration under this program:  
...(9) generators used to provide primary or supplemental power to a building, facility, stationary source, or stationary equipment, except ...maintenance and repair operations...*

Per Rule 2201, Section 3.41, TREU's are not allowed to have any increase in emissions over the unit it temporarily replaces, and are exempt from BACT and offsets per Sections 4.2.5 and 4.6.5. As TREU's are not subject to any requirements under NSR, there is no reason to require permits. Rule 2020 Section 6.16.2.2 will allow engines that qualify as TREU's under Rule 2201, Section 3.41 to operate under their registration, without requiring permitting, and such exemption is not a relaxation under SB288.

### **B. Heavy Oil Tanks at Small Producers**

Section 6.6.12 would add a permit exemption for heavy oil tanks operated by small producers and limited to throughputs of less than 50 barrels of heavy crude oil/day.

Small Producer tanks used in heavy oil production have minimal emissions due to the low volatility of heavy oil (having an API gravity of less than 20 degrees), and low limited throughput. The proposed exemption allows a throughput up to 50 barrels of oil per day and per tank. For instance, average emissions from a heavy oil small producer tank with no pressure relief valve is 47 pounds of VOC per tank, ranging from 21 lb/year at a wash tank to 73 lb/year at a stock tank. The daily emissions from these tanks are under 0.2 pounds of VOC. Annual VOC emissions from all 769 such tanks in the San Joaquin Valley are under 0.05 tons per day. Please note that these emissions do not take in consideration the

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use of a pressure relief valve. However, it is now standard practice to equip new tanks in this category with pressure relief valves to protect the tanks from corrosion.

The following is an analysis of SB288 implications of this proposed change:

1. BACT: Rule 2201, Section 4.1 requires BACT for any increase over 2.0 lb/day and for any SB 288 Major Modification or Federal Major Modification.

These Small Producer tanks have minimal emissions due to the low volatility of the oil and low throughput. The daily emissions from these tanks are well under 2 lb/day of VOC, and are therefore exempt from BACT.

2. Offsets: Rule 2201, Section 4.5 requires emission offsets to mitigate new or increased emissions above specific thresholds and any emission increase for stationary sources which already exceed the offset thresholds.

The insignificant emissions from these Small Producer tanks, coupled with existing District policy setting daily average emissions less than 0.5 lb/day to zero for NSR purposes, will not exceed the offset thresholds. Therefore, these Small Producer tanks are not subject to offset requirements under NSR.

3. Public Notice: Public Noticing is required for significant new or modified sources of emissions. Rule 2201, Section 5.4 lists the five thresholds which a project would trigger a public notification if exceeded.

Tanks exempted by proposed Rule 2020, Section 6.6.12 have insignificant emissions and do not trigger public notification requirements.

Therefore, no project will avoid NSR requirements that would be otherwise applicable, and therefore, the proposed amendments are not prohibited under SB288.

### **C. NSPS/NESHAP Provisions**

There are no changes expected from the current practice of permitting sources subject to NSPS or NESHAP requirements. The proposed amendments to Rule 2020 are to allow currently exempt IC engines rated 50 bhp or less that are subject to newer NSPS/NESHAP requirements, to remain exempt from permit requirements. Therefore, no project will avoid NSR requirements that would be otherwise applicable, and therefore, the proposed amendments are not prohibited under SB288.

**D. Source Test Methods**

The proposed amendments to Rule 2020 do not alter the permitting requirements applicable to sources of emissions. The source tests outlined in the rule are used to demonstrate compliance with applicable requirements, and therefore, the revised source test sections will not avoid NSR requirements that sources otherwise need to comply with.

As shown above, engines and tanks affected by the proposed amendments do not trigger NSR requirements for BACT, offsets, and public noticing. Although the District does not believe Rule 2020 is part of the NSR rules addressed under SB 288 mandates, none of the proposed amendments to Rule 2020 violate the requirements of SB288.

Most importantly, as demonstrated above, the proposed changes do not result in emissions increase that would impact air quality and the proposed amendments result in the elimination of unnecessary regulatory burden to both the operators and the District.

**IV. RULE DEVELOPMENT PROCESS**

District Staff will conduct a public workshop on October 21, 2014 to present, discuss and take comments on the proposed rulemaking. The District will consider written comments received from the public, affected sources, ARB, and EPA during the public workshop process and incorporate them into the draft rule as appropriate. The Hearing to consider adoption by the District's Governing Board is scheduled for December 18, 2014, after which Rule 2020 will be forwarded to EPA via ARB for inclusion into the SIP if adopted.

Federal, state, or local mandates do not necessitate these rule amendments.

**V. COST EFFECTIVENESS AND SOCIOECONOMIC IMPACT ANALYSIS**

Pursuant to CH&SC Section 40920.6(a), the District is required to analyze the cost effectiveness of new rules or rule amendments that implement Best Available Retrofit Control Technology (BARCT). The draft amendments do not add BARCT requirements and therefore are not subject to the cost effectiveness analysis mandate.

Additionally, state law requires the District to analyze the socioeconomic impacts of any proposed rule amendment that significantly affects air quality or strengthens an emission limitation. The draft amendments will have neither effect, and is therefore not subject to the socioeconomic analysis mandate.

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### **VI. RULE CONSISTENCY ANALYSIS**

Pursuant to CH&SC Section 40727.2 (g) a rule consistency analysis of the draft rule is not required, because the draft rule does not strengthen emission limits or impose more stringent monitoring, reporting, or recordkeeping requirements.

### **VII. ENVIRONMENTAL ASSESSMENT**

According to the California Environmental Quality Act (CEQA) statutes and pursuant to Section 15061 of the CEQA Guidelines, the District investigated the possible environmental impacts of the amendments to Rule 2020. Based on the lack of evidence to the contrary, the District has concluded that the rule amendments will not have any significant adverse effects on the environment. As such, the District finds that the rule amendment project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061 (b)(3)). Therefore pursuant to Section 15062 of the CEQA Guidelines, Staff will file a Notice of Exemption upon Governing Board approval of amendments to Rule 2020.

### **VIII. RACT ANALYSIS**

CAA §182(b)(2) requires ozone non-attainment areas to implement RACT for sources that are subject to Control Techniques Guidelines (CTG) documents issued by EPA and for "major sources" of volatile organic compounds (VOCs) and oxides of nitrogen (NOx), which are ozone precursors. Rule 2020 is not a prohibitory rule, therefore a RACT analysis is not required for this rule-amending project.